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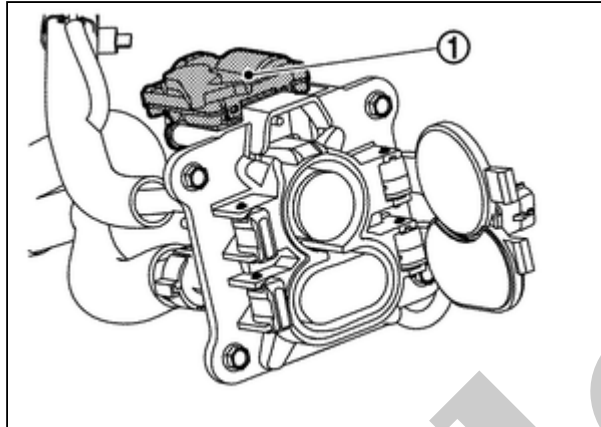
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2014 Nissan Armada Service and Repair Manual

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FUNCTIONS WITHIN THE SYSTEM

Charge connector lock actuator ① locks charge connector by lock pin, when charge connector is connected to normal charge port during normal charge. Refer to [System Description](#).



SIEMD-7198913-01-000391561

INDIVIDUAL OPERATION

The charge connector is locked by inserting a lock pin of the charge connector lock actuator into the tip of normal charge connector.

Operation

Lock pin is operated to Lock/Unlock position by operation request signal from VCM.

PARTS LOCATION

Charge connector lock actuator is installed to top of charge port.

Refer to [Specifications](#).

FUNCTION

Diagnosis test mode	Function
C/U identification information	Displays parts No. of CPLC
Self-diagnosis result	Displays trouble diagnosis result judged by CPLC*

* : When memory of CPLC is deleted, the following diagnosis information are also deleted

- DTC
- Freeze frame data
- Corresponded operation history and operation count.

C/U identification information

Parts No. of CPLC is displayed.

SELF-DIAG RESULTS

Refer to [DTC Index](#).

- When self-diagnosis result displays "CURRENT"
 - system error is now occurred.
- When self-diagnosis result displays "STORED"
 - system is recovered as normal now.

Freeze Frame Data (FFD)

The Freeze Frame Data stores the status of the vehicle when the DTC is detected and displays on CONSULT screen.

Freeze frame data item	Function
Odometer/Trip meter	Displays mileage when DTC is detected
DTC count	Displays number of DTC is occurred.

FUNCTION

Diagnosis test mode	Function
C/U identification information	Displays parts No. of DC/DC converter
Self-diagnosis result	Can immediately read and delete DTC and freeze frame data.*
Data monitor	Can read input and out put data of DC/DC converter

* : When memory of DC/DC converter is deleted, the following diagnosis information are also deleted

- DTC
- Freeze frame data
- Corresponded operation history and operation count.

SELF-DIAG RESULTS MODE

Self Diagnostic Item

Regarding items of DTC, Refer to [DTC Index](#).

IGN Counter

IGN counter is displayed in Freeze Frame Data (FFD). It displays the number of operations of power switch from OFF to ON after DTC recovery to normal. Refer to [Diagnosis Description](#).

- CAN malfunction (U1000)
 - The number "0" is displayed when a malfunction is detected now.
 - The displayed number counts up at each operation of power switch from OFF to ON after recovery to normal, such as 1 → 2 → 3...38 → 39.
 - The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.
- Except CAN malfunction (Except U1000)
 - The number "0" is displayed when a malfunction is detected now.
 - The displayed number counts up at each operation of power switch from OFF to ON after recovery to normal, such as 1 → 2 → 3...254 → 255.
 - The number is fixed to 255 until the self-diagnosis results are erased if it is over 255.

Freeze Frame Data

The Freeze Frame Data shows the status of the vehicle when the DTC is detected and is useful for recreating the status when the malfunction occurred.

Freeze frame data item	Function
Input voltage	Displays AC current value of DC/DC converter
DC/DC converter internal rectifier voltage 1	Displays DC / DC converter internal rectified voltage 1.
DC/DC converter internal rectifier voltage 2	Displays DC / DC converter internal rectified voltage 2.
DC/DC converter high voltage primary transformer	Displays high voltage primary converted current 1 of DC/DC converter

Freeze frame data item	Function
current 1	
DC/DC converter high voltage primary transformer current 2	Displays high voltage primary converted current 2 of DC/DC converter
DC/DC converter low voltage transistor output current 1	Displays low voltage side output current 1 of DC/DC converter
Low voltage transistor 1 temperature	Displays low voltage side transistor 1 temperature
Low voltage transistor 2 temperature	Displays low voltage side transistor 2 temperature
DC/DC converter 14V output voltage	Displays DC/DC converter output voltage
DC/DC converter activation signal	Displays DC/DC converter start signal received from VCM
DC/DC converter output voltage command value	Displays output voltage command value received from VCM
DC/DC converter high voltage input current	Displays high voltage current value input to DC/DC converter
DC/DC converter output current	Displays DC/DC converter output current
DC/DC converter temperature	Displays DC/DC converter temperature
DC/DC converter available output current	Displays possible output current value calculated by DC/DC converter
Service plug status (CAN)	This is displayed but not used.
Power ON integrated time	Displays the elapsed time since power switch is turned on.
12V battery voltage	Displays 12 V battery voltage
VCM wake up command	Displays start command signal from VCM
DC/DC converter high voltage input voltage	Displays input high voltage value to DC/DC converter
DC/DC converter supply voltage	Displays DC/DC converter internal voltage
DC/DC converter high voltage internal input current	Displays DC/DC converter internal high voltage current
DC/DC converter estimation coolant temperature 1	Displays estimated coolant temperature
DC/DC converter estimation coolant temperature 2	Displays estimated coolant temperature
DC/DC converter internal current sensor supply voltage	Displays supplied voltage to current sensor in DC/DC converter
High voltage overcurrent	This is displayed but not used.
DC/DC converter Input voltage internal monitor voltage	Displays internal monitor voltage of input voltage to DC / DC converter.
DC/DC converter Input voltage internal monitor quality	This is displayed but not used.
DC/DC converter internal error 1	Displays DC/DC converter internal malfunction 1
DC/DC converter internal error 2	Displays DC/DC converter internal malfunction 2
DC/DC converter high voltage internal voltage range check	Displays check range of internal voltage of DC/DC converter high voltage side.
DC/DC converter low voltage internal short circuit counter 1	Displays number of short circuit occurrence in DC/DC converter low voltage circuit.
DC/DC converter low voltage internal short circuit counter 2	Displays number of short circuit occurrence in DC/DC converter low voltage circuit.
DC/DC converter calculate output current 1	Displays output current value calculated by DC/DC converter.
DC/DC converter calculate output current 2	Displays output current value calculated by DC/DC converter.
DC/DC converter internal output voltage monitor 1	Displays internal output voltage monitor 1 of DC/DC converter
DC/DC converter internal output voltage monitor 2	Displays internal output voltage monitor 2 of DC/DC converter
DC/DC converter internal error monitor	This is displayed but not used.
DC/DC converter internal SPI error monitor	This is displayed but not used.

Freeze frame data item	Function
DC/DC converter internal MPU error monitor	This is displayed but not used.
DC/DC converter internal MPU data monitor	This is displayed but not used.
DC/DC converter internal MPU trap monitor	This is displayed but not used.
DC/DC converter internal MPU trap adress monitor	This is displayed but not used.
Odometer/Trip meter	Displays mileage when DTC is detected
DTC count	Displays number of DTC is occurred.

DATA MONITOR MODE



NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Unit	Function
Input voltage	V	Displays voltage of DC/DC converter input side (high power battery side)
DC/DC converter activation signal	—	Displays start signal of DC/DC converter received from VCM
DC/DC converter status	—	Displays status of DC/DC converter
DC/DC converter output voltage command value	V	Displays output voltage command value that VCM requests DC/DC converter
DC/DC converter output current	A	Displays DC/DC converter output current
DC/DC converter temperature	%	Displays DC/DC converter temperature
DC/DC converter available output current	A	Displays possible output current calculated by DC/DC converter
12V battery voltage	V	Displays 12 V battery voltage
DC/DC converter input power	kw	Displays DC/DC converter input power
DC/DC converter error type	—	Displays malfunction type of DC/DC converter

ON BOARD DIAGNOSTIC (OBD) SYSTEM

DC/DC converter that is corresponded to on board diagnostic system detects malfunction automatically, when system error occurs.

Malfunction information is stored DC/DC converter memory as a DTC that can be obtained with CONSULT.

COUNTER SYSTEM

Counter system counts up at every operation of power switch from OFF to ON under condition that the same malfunction is not detected. On the other hand, if the same DTC as memorized one is detected again, the count is reset and the counter system counts up again from "0".

DTC AND FREEZE FRAME DATA

DC/DC converter can save multiple DTCs but can only save one freeze frame data.

After DC/DC converter detects a malfunction and saves DTC and freeze, frame data, if a different malfunction is detected, multiple DTCs are confirmed, but only first freeze frame data.

DTC and freeze frame data can be deleted when self-diagnostic is deleted.

FUNCTION

Diagnosis test mode	Function
C/U identification information	Displays parts No. of on-board charger
Self-diagnosis result	Can immediately read and delete DTC and freeze frame data.*
Data monitor	Can read input and out put data of on-board charger
Work support	Can adjust component parts and system according to CONSULT display

*: When memory of on-board charger is deleted, the following diagnosis information are also deleted

- DTC
- Freeze frame data
- Corresponded operation history and operation count.

SELF-DIAG RESULTS MODE

Self Diagnostic Item

Regarding items of DTC, Refer to [DTC Index](#).

IGN Counter

IGN counter is displayed in Freeze Frame Data (FFD). It displays the number of operations of power witch from OFF to ON after DTC recovery to normal.Refer to [Diagnosis Description](#).

- CAN malfunction (U1000)
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 - The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.
- Except CAN malfunction (Except U1000)
 - The number is 0 when a malfunction is detected now.
 - The displayed number counts up at each operation of power switch from OFF to ON after recovery to normal, such as 1 → 2 → 3...254 → 255.
 - The number is fixed to 255 until the self-diagnosis results are erased if it is over 255.

Freeze Frame Data

The Freeze Frame Data shows the status of the vehicle when the DTC is detected and is useful for recreating the status when the malfunction occurred.

Freeze frame data item	Function
Odometer/Trip meter	Displays mileage at DTC detection.
DTC count	Displays numbers of DTC occurrence
AC voltage	Displays AC voltage value of on-board charger input side (EVSE side) when DTC is detected.

Freeze frame data item	Function
AC current	Displays AC current value of on-board charger input side (EVSE side) when DTC is detected.
DC voltage	Displays DC voltage value of on-board charger output side (high power battery side) when DTC is detected.
DC current	Displays DC current value of on-board charger output side (high power battery side) when DTC is detected.
Switching frequency	Displays operation frequency of on-board charger internal temperature sensor when DTC is detected.
Internal temperature 1	Displays value of on-board charger internal temperature sensor when DTC is detected.
Internal temperature 2	Displays value of on-board charger internal temperature sensor when DTC is detected.
Internal temperature 3	Displays value of on-board charger internal temperature sensor when DTC is detected.
Battery charger state	Displays status of on-board charger when DTC is detected
Battery charger fail code	Displays fail code that on-board charger detects when DTC is detected
12V battery voltage	Displays voltage value of 12 volt battery when DTC is detected.
DC current (Command value)	Displays DC charge current command value that VCM request on-board charger when DTC is detected.
AC current (Maximum value)	Displays AC charge current command value that VCM request on-board charger when DTC is detected.

DATA MONITOR MODE



NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Unit	Function
AC voltage	V	Displays AC voltage value of on-board charger input side (EVSE side)
AC current	A	Displays AC current value of on-board charger input side (EVSE side)
DC voltage	V	Displays DC voltage value of on-board charger output side (high power battery side)
DC current	A	Displays DC current value of on-board charger output side (high power battery side)
Battery charger state	—	Displays status of on-board charger
Battery charger fail code	—	Displays fail code that on-board charger detects
DC current (Command value)	A	Displays DC charge current command value that VCM request on-board charger
AC current (Maximum value)	A	Displays AC charge current command value that VCM request on-board charger.

WORK SUPPORT

WORK ITEM	DESCRIPTION	USAGE
OTA status reset	NOTE: This item is displayed but not used.	—

ON BOARD DIAGNOSTIC (OBD) SYSTEM

On-board charger that is corresponded to on board diagnostic system detects malfunction automatically, when system error occurs.

Malfunction information is stored in on-board charger memory as a DTC that can be obtained with CONSULT.

COUNTER SYSTEM

Counter system counts up at every operation of power switch from OFF to ON under condition that the same malfunction is not detected. On the other hand, if the same DTC as memorized one is detected again, the count is reset and the counter system counts up again from "0".

DTC AND FREEZE FRAME DATA

On-board charger can save multiple DTCs but can only save two freeze frame data.

After on-board charger detects a malfunction and saves DTC and freeze, frame data, if a different malfunction is detected, multiple DTCs are confirmed, but only two freeze frame data.

DTC and freeze frame data can be deleted when self-diagnostic is deleted.

Sample